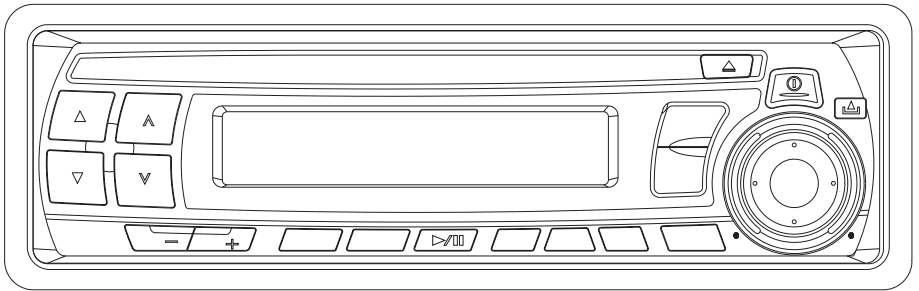


OWNER'S MANUAL



**MANUALLY TUNED SYNTHESIZER STEREO RADIO
WITH COMPACT DISC PLAYER DIGITAL**

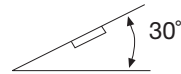
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INSTALLATION

Notes:

- Choose the mounting location where the unit will not interfere with the normal driving function of the driver.
- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.



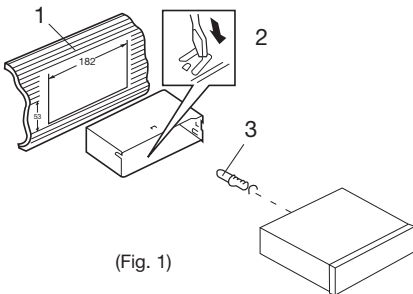
- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

DIN FRONT/REAR-MOUNT

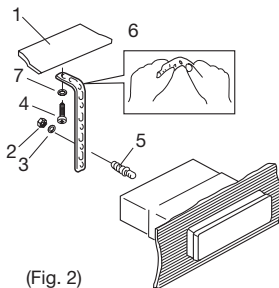
This unit can be properly installed either from “Front” (conventional DIN Front-mount) or “Rear” (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

DIN FRONT-MOUNT (Method A)

Installing the unit



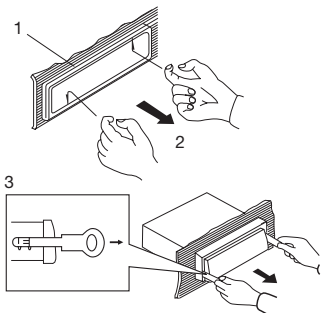
1. Dashboard
2. Holder
After inserting the holder into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.
3. Screw



(Fig. 2)

1. Dashboard
2. Nut (5mm)
3. Spring washer
4. Screw (5 x 25mm)
5. Screw
6. Strap
Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.
7. Plain washer

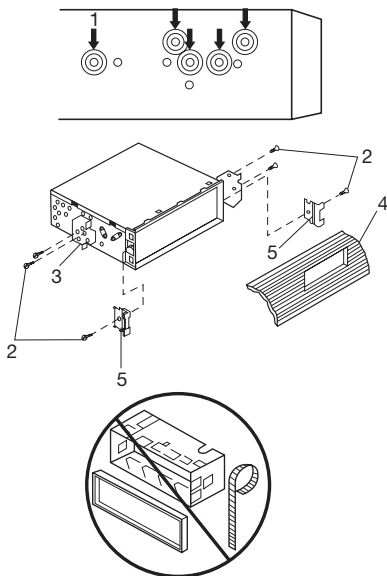
Removing the unit



1. Frame
2. Insert fingers into the groove in the front of frame and pull out to remove the frame. (When re-attaching the frame, point the side with a groove downwards and attach it.)
3. Lever
Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers makes it possible to remove the unit from the dashboard.

DIN REAR-MOUNT (Method B)

Installation using the screw holes on the sides of the unit.



Fastening the unit to the factory radio mounting bracket.

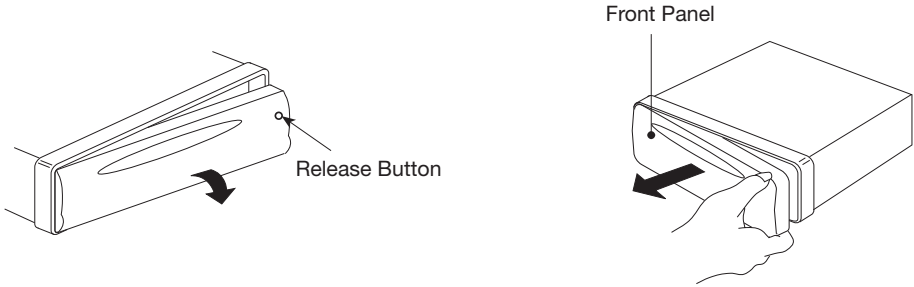
1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side.
Use either truss screws (5 x 5mm) or flush surface screws (4 x 5mm), depending on the shape of the screw holes in the bracket.
2. Screw
3. Factory radio mounting bracket
4. Dashboard or Console
5. Hook (Remove this part)

Note: The mounting box, outer trim ring, and half-sleeve are not used for method B installation.

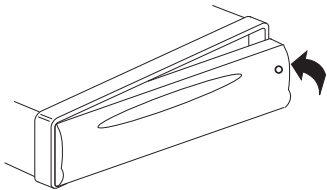
HOW TO REMOVE AND INSTALL THE FRONT PANEL (OPTIONAL)

- 1. Press the release button and pull-off the front panel.
Keep front panel into the case.
- 2. To install the front panel, insert the panel into the housing and make sure the panel is properly installed, otherwise, abnormalities occurs on the display or some keys will not function properly.

REMOVING THE FRONT PANEL

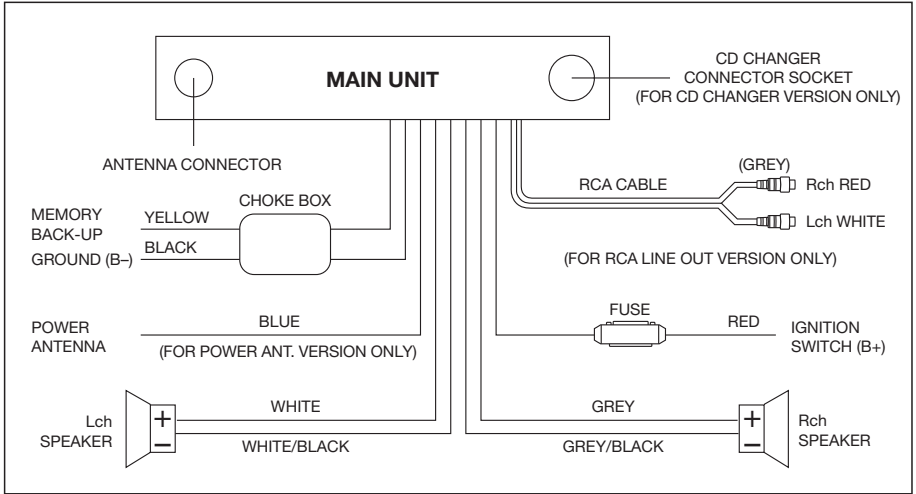


INSTALLING THE FRONT PANEL



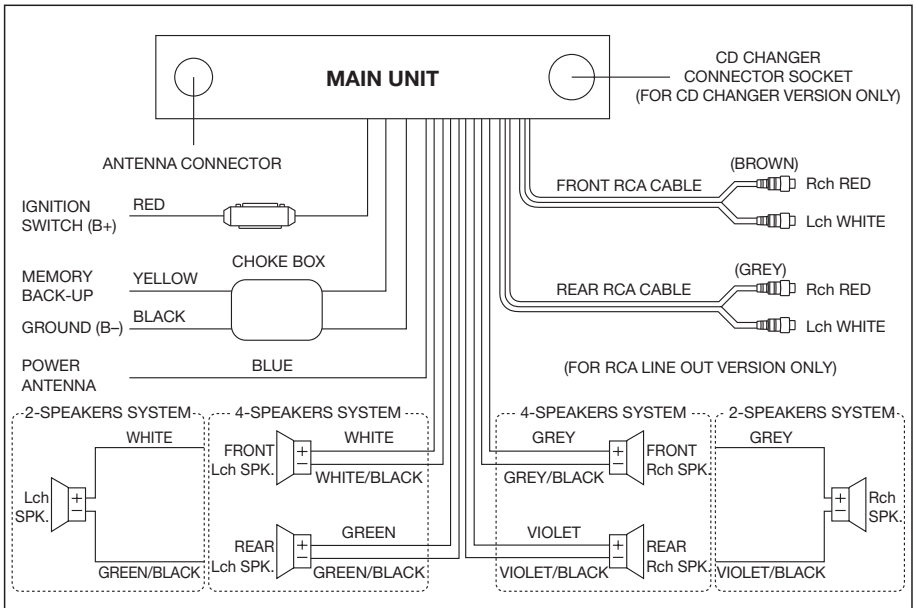
WIRING CONNECTION

FOR 2 X 7W SYSTEM



WIRING CONNECTION

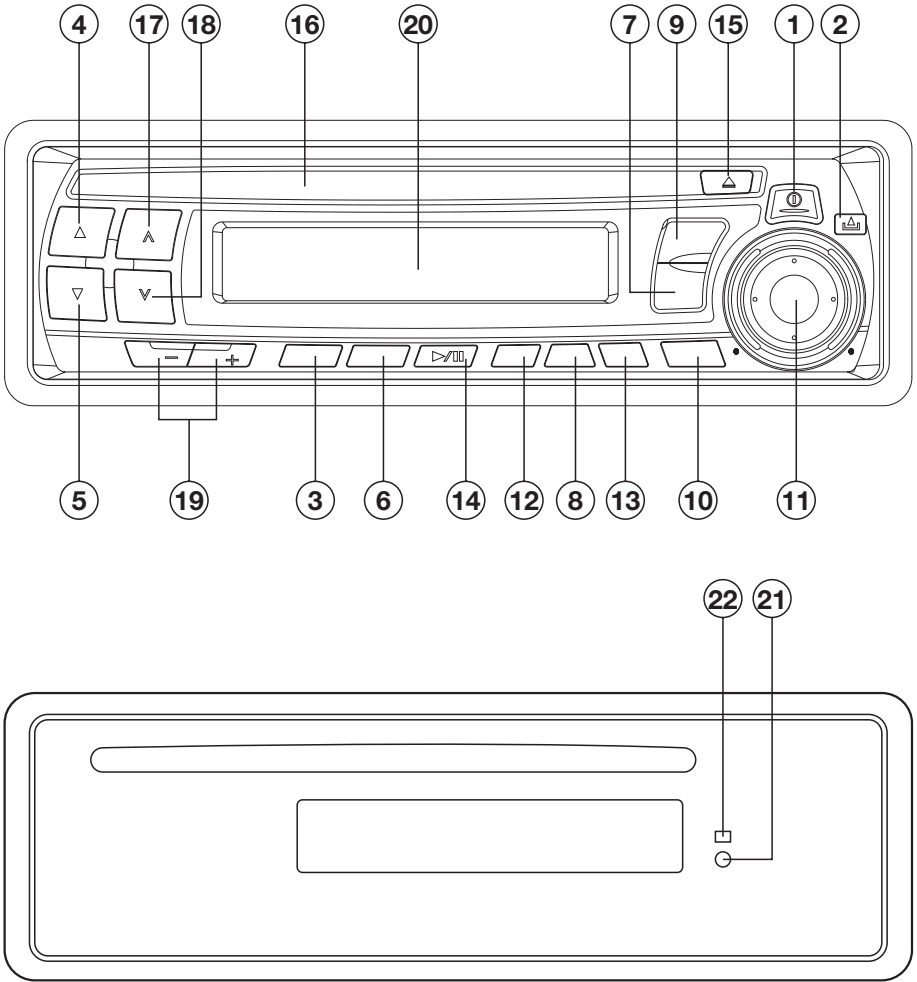
FOR 4 X 7W OR 2 X 25W SYSTEM



Note:

1. For 2-speakers system, green, violet, white/black and grey/black wire leads are unconnected and isolated.
2. For 2-speakers system, keep the fader control at center position to maintain the existing volume level.

OPERATION



GENERAL OPERATION

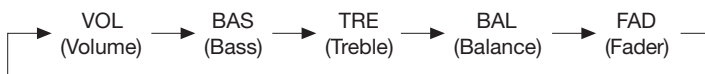
- **ON/OFF**
Press **PWR** button (1) to turn on the unit. Press it again to turn it off.
- **FACEPLATE RELEASE**
Press **REL** button (2) to detach the removable faceplate.
- **LOUDNESS**
Press **LOU/RND** button (8) shortly to reinforce the bass output.

- **SET THE CLOCK**

Press **DSP** button (9) to change the display to clock display. Press it again to return to previous display. In clock display, press and hold the **DSP** button (9) for several seconds until the clock display flashes. Press **VOL** ▾ (5) to change minutes or **VOL** △ (4) to change hours.

- **SELECT MODE**

Press **SEL** button (3) to change audio mode through volume, bass, treble, balance, and fader modes. Use **VOL** △ (4) and **VOL** ▾ (5) buttons to adjust the selected mode. When mode has not been adjusted for several seconds, display returns to normal radio or CD display.



Volume

Adjust volume level by using **VOL** △ (4) and **VOL** ▾ (5) buttons.

Note: The unit is initially set to **volume** mode.

Bass

Press **SEL** button (3) one time. Adjust bass level by using **VOL** △ (4) and **VOL** ▾ (5) buttons.

Treble

Press **SEL** button (3) two times. Adjust treble level by using **VOL** △ (4) and **VOL** ▾ (5) buttons.

Balance

Press **SEL** button (3) three times. Adjust sound balance between left and right speakers by using **VOL** △ (4) and **VOL** ▾ (5) buttons.

Fader

Press **SEL** button (3) four times. Adjust sound balance between front and rear speakers by using **VOL** △ (4) and **VOL** ▾ (5) buttons.

- **MUTE**

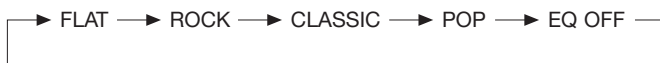
Press **MUT** button (6) to mute down sound. Press it again to release this mode and recover previous volume level.

- **SELECT MODE**

Press **MOD** button (7) to change radio or CD mode. During CD operation, press **BND** button (10) to switch to radio mode. During radio operation, when a compact disc is inserted in the disc slot (16), press ▷/⏮ button (14) to switch to CD mode and start playing.

- **EQUALIZATION**

Press **EQ** button (19) to turn to equalization function and to select desired audio mode. There are four kinds of mode as below:



- **LIQUID CRYSTAL DISPLAY**

The **LCD** (20) can show the current state of the unit.

- **FLASHING LED**

If the front panel is not on the main unit, **LED** (21) will be flashing.

- **RESET BUTTON FUNCTION**

RESET button (22) is placed on the housing and must be activated with either a ballpoint pen or thin metal object. The **RESET** button (22) is to be activated for the following reasons:

- Initial installation of the unit when all wiring is completed.
- All the function buttons do not operate.
- Error symbol on the display.

Note: If press **RESET** button (22), the unit can't work yet, please use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the front panel.

RADIO OPERATION

- **BAND**

Press **BND** button (10) to change bands as below:



- **SELECT STATION**

Rotate **TUNING** knob (11) clockwise or anticlockwise to adjust the frequency upward or downward.

- **LOCAL/DISTANT**

Press the **LOC/RPT** button (12) to select between local setting for reception of strong station and distant setting for reception of weak stations when tuning.

- **MONO/STEREO**

In FM band, press **MON/INT** button (13) to select mono or stereo reception for radio stations. You can sometimes improve reception of distant stations by selecting mono operation.

CD OPERATION

- **DISC PLAY**

Gently insert a compact disc with the label side facing up into the disc slot (16). The disc is then automatically loaded into the unit and starts playing with the first track of the disc. The digital display will indicate the track number and the time of the track.

- **EJECT**

Press **▲** (eject) button (15) to stop CD play and eject CD from slot. Receiver switches to radio operation.

- **PAUSE CD**

During CD playing, press **▷/⏸** button (14) to temporarily stop playing. Press it again to resume playback.

- **SKIP TRACKS**

Press **TRACK ▲** button (17) or **TRACK ▼** button (18) to choose the following track or the previous track. Track numbers show on display.

- **FAST FORWARD AND FAST REVERSE**

Hold **TRACK ▲** button (17) or **TRACK ▼** button (18) for several seconds to fast forward or fast reverse. Releasing the button to stop fast playing.

- **REPEAT**

During CD playing, press **LOC/RPT** button (12) to continuously repeat playing the current track. Press it again to release this mode.

- **INTRO: PREVIEW ALL TRACKS**

During CD playing, press **MON/INT** button (13) to play first several seconds of each track. Press it again to stop intro and listen to track.

- **RANDOM: PLAY ALL TRACKS IN THE RANDOM ORDER**

During CD playing, press and hold **LOU/RND** button (8) for several seconds to play all tracks in the random order. Press it again to cancel the function.

- **DISC SELECTION (FOR CDC VERSION ONLY)**

During CDC mode, press **CD +** button or **CD -** button (19) to select next or previous disc.

SPECIFICATION

GENERAL

- Power Supply Requirements : DC 12 Volts, Negative Ground
- Chassis Dimensions : 178 (W) x 163 (D) x 50 (H) mm
- Tone Controls
 - Bass (at 100 Hz) : +10 dB / -10 dB
 - Treble (at 10 KHz) : +10 dB / -10 dB
- Maximum Output Power
 - Version V : 7W x 4 (ch) or 25W x 2 (ch)
 - Low Power Version : 7W x 2 (ch)
- Current Drain
 - Version V : 5 Ampere (FOR NORMAL POWER)
 - Low Power Version : 3 Ampere (FOR LOW POWER)

CD PLAYER

- Signal to Noise Ratio : More than 60 dB
- Channel Separation : More than 60 dB
- Frequency Response : 20 Hz - 20 KHz

RADIO

	For 3 Bands (Europe)	For 2 Bands (Europe)	For 2 Bands (U.S.A.)
	FM	FM	FM
Frequency Coverage	: 87.5 to 108 MHz	87.5 to 108 MHz	87.5 to 107.9 MHz
IF	: 10.7 MHz	10.7 MHz	10.7 MHz
Sensitivity (S/N = 30 dB)	: 5 μ V	5 μ V	5 μ V
Stereo Separation	: > 25 dB	> 25 dB	> 25 dB
	MW	MW	AM
Frequency Coverage	: 522 to 1620 KHz	522 to 1620 KHz	530 to 1710 KHz
IF	: 450 KHz	450 KHz	450 KHz
Sensitivity (S/N = 20 dB)	: 32 dBu	32 dBu	32 dBu
	LW		
Frequency Coverage	: 150 to 280 KHz		
IF	: 450 KHz		
Sensitivity (S/N = 20 dB)	: 35 dBu		

TROUBLE SHOOTING

Before going through the check list, check wiring connection. If any of the problems persist after check list has been made, consult your nearest service dealer.

Symptom	Cause	Solution
No power.	The car ignition switch is not on.	If the power supply is properly connected to the car accessory terminal, switch the ignition key to "ACC".
	The fuse is blown.	Replace the fuse.
Disc cannot be loaded or ejected.	Presence of CD disc inside the player.	Remove the disc in the player, then put a new one.
	Inserting the disc in reverse direction.	Insert the compact disc with the label facing upward.
	Compact disc is extremely dirty or defective disc.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Cool off or until the ambient temperature return to normal.
	Condensation.	Leave the player off for an hour or so, then try again.
No sound.	Volume is in minimum.	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
Sound skips.	The installation angle is more than 30 degrees.	Adjust the installation angle less than 30 degrees.
	The disc is extremely dirty or defective disc.	Clean the compact disc, then try to play a new one.
The operation keys do not work.	The built-in microcomputer is not operating properly due to noise.	Press the RESET button. Front panel is not properly fixed into its place.
The radio does not work. The radio station automatic selection does not work.	The antenna cable is not connected.	Insert the antenna cable firmly.
	The signals are too weak.	Select a station manually.